

## Abstract

A method for producing a dendrimer having a structural repeating unit which is represented by formula (1) and which contains a linear portion including a thienylene moiety and a branch portion Y formed of an optionally substituted trivalent organic group. The method is based on the convergent method and includes reaction step 1 of converting  $\alpha$ -position hydrogen of the thiophene ring of a thienylene-moiety-containing compound (a) for forming end moieties to an active group  $V_1$  which undergoes Suzuki cross-coupling reaction, to thereby form compound (b); reaction step 2 of subjecting a compound (c) to Suzuki cross-coupling reaction with the compound (b), to thereby yield compound (d), the compound (c) having a linear portion and a branch portion Y and having, at the branch portion Y, two active groups  $V_2$  which undergo Suzuki cross-coupling reaction with the active group  $V_1$ ; reaction step 3 of converting  $\alpha$ -position hydrogen of the thiophene ring of the thus-formed compound to an active group  $V_1$  which undergoes Suzuki cross-coupling reaction, and reacting the compound (c) with the active group  $V_1$ , to thereby form a dendron of a subsequent generation; and a step of repeating the reaction step 3 in accordance with needs, to thereby form a dendrimer.

